

Bacterial Infections

Bullous Impetigo

- inf of Epidermis
- 1st lesion is bullae
- May give "circinate Impetigo"
- org = staph
- Common in newborn + in trunk

Non-Bullous Impetigo

- Org: staph + strept
- Common in children
- 1st lesion $\Rightarrow$ vesicles on erythematous base that rupture forming yellowish brown crust
- Ulcerative Impetigo $\Rightarrow$ Ecthyma

thick crust $\rightarrow$ ulcer $\rightarrow$ heal with scar

Erysipelas

- Inf of the dermis by strept. pyogenes
- 1st lesion $\Rightarrow$ well-defined tender, red, edematous plaque
- May be hemorrhagic in elderly
- associated with lymphedema (x lymphadenitis)

Cellulitis

- inf of dermis + s.c tissue caused by strept
- the lesion is ill-defined, red, tender
- associated with lymphadenitis

strept. Intertrigo

- inflammation of superficial layers in skin folds in intertriginous areas
- 1st lesion $\Rightarrow$ longitudinal painful fissure

Angular cheilitis

- inf of skin + labial mucus membrane at angle of the mouth (erythema + edema)
- causes (staph - strept - riboflavin deficiency)

fruncles

"Boils"

- inf of pilosebaceous apparatus (deep part of hair follicle)
- org: staph
- lesion: follicular nodule + center becomes yellow and discharge pus

Carbuncle

- staph inf of adjacent follicles
- lesion $\Rightarrow$ painful, tender lump with pus discharging from multiple follicular orifices
- Back of the neck is a common site

Erythrasma

- superficial inf of intertriginous areas
- org: corynebacterium minutissimum
- chronic - scaly
- lesion $\Rightarrow$ well defined, dry + brown scaly patches
- Diagnosis $\Rightarrow$ coral red with wood's light
- (D.D) T. cruris - T. pedis - P. versicolor

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treatment of Bacterial infections

Impetigo

- 1) Remove crust by olive oil
- 2) drying lotion (P-permanganate)
- 3) Antibiotic
 - topical
 - systemic
 - in severe cases with systemic manifestations
 - + Bullous impetigo
 - + strept impetigo

Erysiples, cellulitis

- * subsides without treatment
- * Anti Pyretic
- * leg elevation (for edema)
- * systemic antibiotics
- "penicillens"

complications of strept inf

- glomerulonephritis
- subcutaneous abscess
- septicemia

Furuncles, Carbuncles

- * systemic antibiotic
- * topical antibiotic
- * surgical incision

Erythrasma

- * Topical whitefield ointment
- * systemic antibiotic
- (Erythromycin-tetracycline)

Tuberculosis + leprosy

① TB

Lupus vulgaris →

start in childhood

- * the commonest form of skin T.B (chronic - slowly progressive)
- * 1st lesion → well defined, reddish brown plaque, nodules
- * Heal with contractile, atrophic scar (that may contains active nodules)
- * Diagnosis → Diascopy test "the nodules appear yellowish brown ~ apple jelly nodules"
- * the infection can induce hypersensitivity reaction "tubercloid" causing "Erythema nodosum"

* Drug treatment of lupus vulgaris is antituberculous drugs for 9 months

Complications of L.V
→ Disfigurement
→ attacks of orisipiles
→ squamous cell carcinoma

② leprosy

* primary affects peripheral nerves

Tuberculoid leprosy

- the patient has good immunity
 - (+ve) lepromin test
 - early destruction of the nerve (im) and loss of sensation (and many burns)
- few skin lesions / with absent Bacilli in skin lesions "paucibacillary"
- the lesion is well-defined, painless with erythematous or hypopigmented patches
- skin and peripheral nerves are the only tissues affected.

* lepromin test is not diagnostic

Lepromatous leprosy

- the patient has low immunity
 - (-ve) lepromin test (im)
 - late affection of the nerves, intact sensation
- lesion ⇒ papules and nodules
 - shiny
 - erythematous or normal skin color
- other symptoms
 - leonine facies (im)
 - loss of eye brows
 - Epistaxis (im)
 - involvement of other organs (eye, testis, liver, ovaries)
- Dermis contains foamy histocytes
- Bacilli are present in large number in skin lesions (multibacillary)

Borderline leprosy

- only skin and nerves are affected.
- clinical picture is between the 2 other types
- may evolve into one of the 2 other types

Diagnosis

TB

leprosy

- ① swab (+ ZN stain)
- ② culture (LJ media)
- ③ Biopsy
- ④ PCR
- ⑤ Tuberculin test

SCBP
+
Tuberculin

SB
+ lepromin

- ① smear (+ Modified ZN stain)
(skin + nose)
- ② Biopsy
Nerve (in T.L) → skin
- ③ Lepromin test
- * No culture (not)

Treatment

TB

leprosy

4x2

then

2x4

4x2 → 4x2
then
2x4 → 2x4

- * Isoniazid
- * Rifampin
- * Pyrazinamide
- * Ethambutol
- * streptomycin

~ Multibacillary

Dapsone + Rifampin + clofazimine
(DR) ≥ 2 years

"paucibacillary"

Dapsone + Rifampin
(DR) 6-12 month

superficial fungal infections

① Dermatophytes "Tineas"

1 Tinea Capitis

- infection of scalp hair
- More common in children

Kerion is differentiated from abscess by:-

- ① less or no pain
- ② No systemic manifestation
- ③ has rough surface
- ④ No pus
- ⑤ associated with hair loss in the affected area

scaly type

Black-dot type

Kerion

Favus

- * Microsporum audouinii
- * Microsporum canis

- * Trichophyton violaceum
- * Trichophyton tonsurans

- * animal type

- * Trichophyton schoenleinii

- well-defined patch covered with scales

- * the affected area shows loss of hair and black dots (due to breaking of hair shaft at skin surface)

- * boggy swelling "abscess-like"

- * sulfur cups or "scutula"

- * loss of hair in the affected area

- * lymphadenopathy is frequent

- * yellow crusting surrounding hair follicles

- * single or multiple

- (Red plaque)
- * may be studded with multiple pustules

- * mousy odour

non-scarring alopecia

scarring alopecia

Treatment → first choice is Grisofulvin (im)

Diagnosis → green fluorescence in wood's light (im)

2 Tinea barbae

- infection in beard area "angle of jaw" + Kerion-like or T. corporis like "scaly patch"
- Differentiated from fruncle

3 Tinea Corporis "circinata"

- infection of glabrous skin "hairless" except [palms, soles, grion]

- lesions: * well defined plaques with active raised border
- * clearing in the center of the lesion "circinate"
- * new lesions may develop in the clear center "concentric rings"
- * Coalescence of some lesions "polycyclic"

Differential

(im)

- Annular lichen planus (very clear center)
- Circinate impetigo
- Circinate psoriasis
- Pityriasis rose
- Discoid eczema

4 Tinea cruris

- infection of the grions

- lesion: → well-defined erythematous plaque
- raised border covered with scales, vesicles or pustules
- unilateral or bilateral
- Extend to buttocks, lower back

D.D of scaly scalp

- * psoriasis
- * seborrheic dermatitis
- * pityriasis rubra pilaris
- * scaly Tinea capitis

D.D of Kerion

abscess

5) Tinea pedis

→ 1/3 of the feet + the most common type of tinea.
→ common in adults

types

Inter digital

- * the commonest type
- * the skin between the toes is fissured with white scales and bad odour

scaly hyperkeratotic

- * fine scaling and erythema
- * hyperkeratosis
- * nail affection is common
- * resistant to treatment

vesiculo-bullous

- * develops on the sole
- * vesicles and bullae which change to pustules and rupture forms scaling
- * associated with vesicular eruptions of hands
- * pompholyx or id reaction "Dermatophytid"

6) Tinea manum

→ infection of palm + interdigital areas of the hand

types

scaly hyperkeratotic

- * the commonest type
- * unilateral in (50%)
- * Diffuse hyperkeratosis of the palm and
- * Accentuation of the flexural creases (وخطات)

circumscribed vesicular lesion

- * unilateral in most cases
- * "two feet and one hand S"

* lesion موجود على
dorsum of the hand
"T. circinata" يبقى

7) Tinea unguis "onychomycosis"

→ infection of the nail plate

→ clinical picture:

- whitish-yellowish discoloration of the free edge of nail plate.
- spreads proximally to involve the whole nail
- subungual keratosis
- onycholysis (nail bed تحت nail) (انفصال)
- superficial powdery patches on the proximal nail plate.
- the nail is thickened and distorted.

note
→ Castellani paint
for interdigital T. pedis
→ whitefield ointment
for scaly and hyperkeratotic

Note
← "candidal" paronychia (الفرق بين فطريات
paronychia في nail lateral & proximal
من proximal n. fold عند

Pityriasis versicolor

- superficial fungal inf in horny layer of the skin.
- Org: Malassezia furfur ^(im) [Pathogenic form of "Pityrosporum orbiculare"]
- commonly affecting adults "mainly in summer"
- lesions:
 - well-defined macules and patches.
 - hypopigmented or hyperpigmented or erythematous.
 - surface is covered with fine scales.
(detected by scraping of lesion)
 - common sites: trunk - proximal extremities - neck
 - heal with hypopigmented macules (disappear or persist)
- Diagnosis:
 - yellow fluorescence ^(im) by wood's light
 - microscopic ⇒ "Meatball, spaghetti" spores + short-thick hyphae
- Treatment:
 - Topical (Ketoconazole shampoo)
during summer to prevent recurrence
 - * selenium sulfide + topical antifungal (for LM)
 - * sodium hyposulfite
 - * zinc pyrithione
 - systemic antifungal "fluconazole" in severe cases.
 - repigmentation is enhanced by PUVA

(D.D)

- Vitiligo
- Pityriasis alba
- seborrheic dermatitis
- Erythrasma
- Post inflammatory pigmentation

Fluconazole
300 mg/w / 2w
Itraconazole
200 mg/d / w

Candidiasis ⇒ opportunistic infection

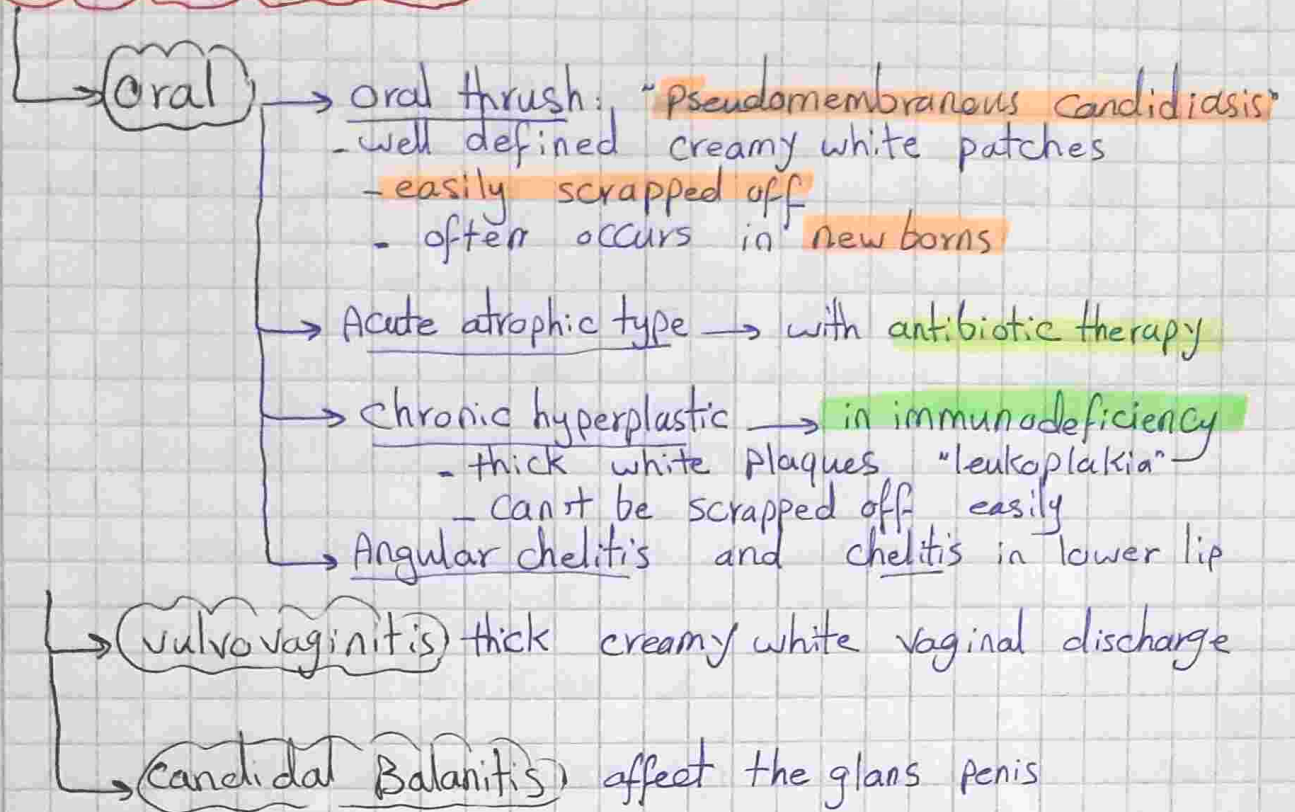
① Cutaneous

- Interdigital, oval white macerated skin "moist and erythematous"
- candidal intertrigo:
 - well defined moist erythematous patches
 - satellite pustules ^(im) outside the patch
- Napkin candidiasis, napkin dermatitis in infants (candida)

② Candidal Paronychia → candidal infection of nail

- Clinical picture:
 - loss of the cuticle.
 - separation of the proximal nail fold.
 - nail folds become swollen, red, tender
 - nail discoloration close to the lateral nail fold.
 - nail thickening + subungual keratosis

③ Mucosal Candidiasis



Treatment of Candidiasis:

- ① treatment of predisposing factors. ☹️
- ② Topical treatment (gentian violet, Castellani)
- ③ systemic treatment
 - Nystatin → for oral and vaginal candidiasis
 - fluconazole
 - vaginal.c → كبسولة كل اسبوع مرة اسبوعين
 - Itraconazole

(note) → Terbinafine is not effective in candidiasis (and griseofulvin)

viral skin diseases

① Herpes simplex



① Primary H-S ⇒ usually asymptomatic but cause extensive manifestations in immunodeficient A.

→ ① (Gingivostomatitis) ⇒ the commonest form / common in infants and children

* vesicles on the oral mucosa → rupture → white erosions surrounded by red areola

* gums are swollen and red

* lymph nodes are enlarged

(Discrete lesions) متباعدة

→ Keratoconjunctivitis

* Conjunctivitis ⊕ Keratitis

* enlarged preauricular L.N

* eyelids are edematous ⊕ vesicles on the skin

* may cause corneal ulcer ⇒ heal by scar

→ (Inoculation H-S)

* Painful vesicles mainly on finger tips "herpetic whitlow" (im)

* may occur in other sites (face - trunk...)

→ (Eczema herpeticum) ⇒ H-S on top of atopic dermatitis

* vesicles and pustules develop over a large area of skin → severe toxicity (!)

* Exudation + Crustation.

→ (Genital H-S) ⇒ mainly by HSV type II

* Grouped vesicles → rupture → erosions and painful white plaques on erythematous base

② Recurrent H-S ⇒ less severe localized lesions - around orifices.

* occurs at similar site each time (im) (في نفس مكان primary lesion)

* lymph nodes are not enlarged

Lesion → Grouped vesicles on an erythematous base (im)

→ itching ⊕ burning

→ heal within 1 week without scar or leaves 2ry leukoderma (مبزة أبيض)

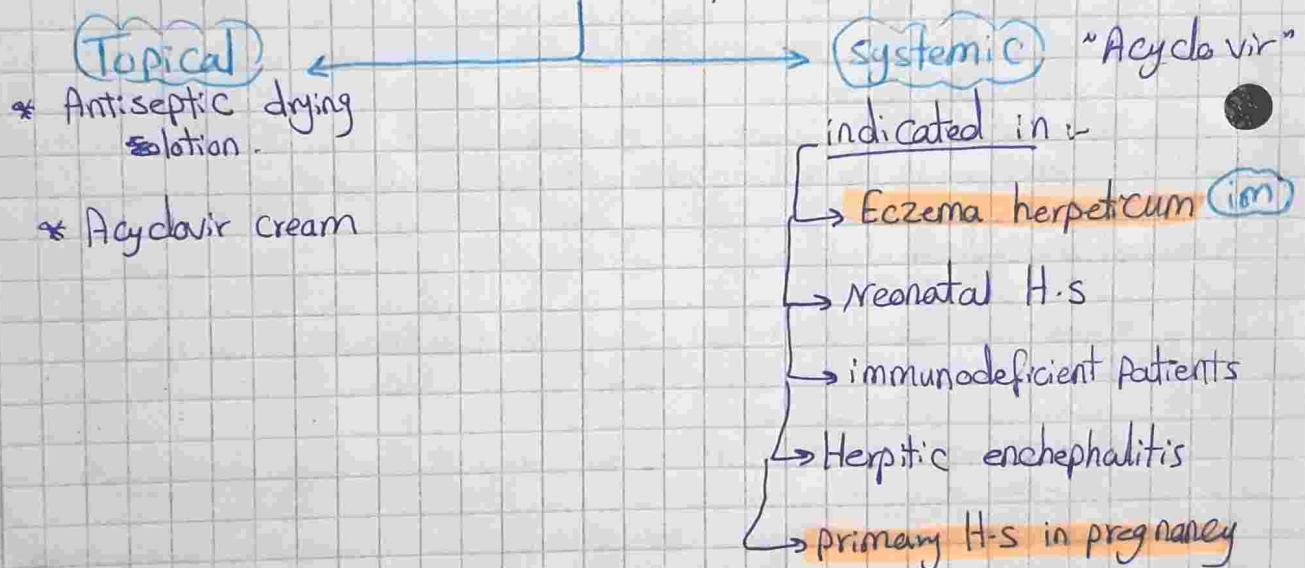
Complications of HSV →

- ① secondary bacterial infection
- ② Erythema multiforme (im) [HSV is the most common precipitating F]
- ③ Corneal opacity
- ④ fetal malformation [in HSV infection during pregnancy]

Note → Recurrent H.S doesn't cause fetal malformation.

Treatment of HSV

(im) mild lesions don't require treatment



Varicella-Zoster

Chicken-Pox "Varicella"

- * the primary infection with VZ-virus
- * long IP $\rightarrow$ (14 - 21 days)
- * common in children

- * Droplet infection
- * acute onset "Rapid"

Lesion $\rightarrow$ "Polymorphic" (im) (erythematous papules, vesicles, pustules, crusting)
 $\rightarrow$ occurs in successive crops (every 2-4 days)
 $\rightarrow$ "hemorrhagic vesicles" $\rightarrow$ in immunocompromised patients
 $\rightarrow$ heal without scar (except in 2nd bacterial infection)

Sites $\rightarrow$ Centripetal distribution (im) on trunk mainly
face - limbs - oral mucosa may be affected.

Diagnostic criteria $\rightarrow$ Rapid onset
Poly morphic lesions. (im)
Centripetal distribution

Complications $\rightarrow$ Secondary bacterial infection $\Rightarrow$ most common
 $\rightarrow$ purpura (im) - thrombocytopenia - orchitis - otitis M
 $\rightarrow$ Cutaneous gangrene (with hemorrhagic varicella)
 $\rightarrow$ viral pneumonia - Encephalitis (in immunocompromised)
 $\rightarrow$ fetal damage "Congenital varicella syndrome"

Treatment $\rightarrow$ self-limited (antipyretics, antihistamines)
 $\rightarrow$ give systemic antiviral in immunocompromised P and pregnancy (acyclovir 800mg 5 times/day)
[Acyclovir - famciclovir - Valacyclovir]

$\rightarrow$ limb hypoplasia
 $\rightarrow$ cortical atrophy
 $\rightarrow$ chorioretinitis

Note $\rightarrow$ Don't give Aspirin as it is associated with "Reye's syndrome"

Herpes-Zoster

reactivation of latent varicella-zoster virus

Clinical picture:

Neuralgic pain

- * the first symptom to appear
- * May precede the eruption by one week

Lesions "eruption"

- * unilateral ^(im) - along the distribution of one or more sensory nerves "dermatomal distribution"
- * Groups of vesicles on erythematous base (continuous or interrupted)
- * vesicles form crust and separates within 2-4 weeks
- * Enlarged regional L.N

Sites

^① thoracic G - ^③ Trigeminal - ^② cervical - ^④ lumbosacral
↳ most common

Special types

- ↳ Abortive ⇒ Neuralgic pain without eruption
- ↳ Hemorrhagic ⇒ in immunocompromised patients
hemorrhagic vesicles / can lead to disseminated infection
- ↳ eruption of varicella with HZ ⇒ indicates bad immunity
- ↳ Gangrenous

Complications

- ↳ Secondary bacterial infection
- ↳ facial palsy "Ramsay-Hunt syndrome" ^(im)
* vesicles on ear pinna and external auditory meatus + facial palsy
- ↳ post-herpetic neuralgia (most common)
* persistent pain after remission of lesions.
- ↳ motor palsy - Encephalitis - keratitis
keratitis, retinitis in ophthalmic zoster

Treatment

- ↳ Topical (cool compress - antibiotic)
- ↳ systemic (acyclovir + analgesics)
(In severe cases) (800 mg 5 times / day for 7 days)
- ↳ postherpetic neuralgia (topical anesthetics - carbamazepine)
- opioids - antidepressants - gabapentin

Indications of systemic Acyclovir III

- ↳ patients older than 50y
- ↳ Immunocompromised
- ↳ ophthalmic zoster
- ↳ Ramsay Hunt syndrome

Pityriasis Rosea



- * Unknown etiology
- * Common in adolescents, young adults.

Clinical picture → "Herald patch" (im) (first sign)

- * large - well defined - rounded patch with red edge covered with collarette of scales (im)
- * the free edge of scales is toward the center of the lesion

secondary eruptions

- * appears after 5-15 days
- * discrete red macules → enlarge → to give herald patches.

(حبيطة) lesions بتكررت نفس lesion الاول

(note) → lesions are parallel to ribs (im)

Sites → trunk - neck - proximal extremities.

Course → Most cases spontaneous remission occurs in 4-6 weeks (im) with exception of some cases (meq)

Differential: d. D → Pityriasisiform drug eruption

- * C Metronidazole - gold - Barbiturates - Captopril
- * No herald patches.

Seborrheic dermatitis (no herald patches)

2° syphilis affect midline of trunk,

Tinea corporis (im) differentiated by scraping and M/E of fungus

Psoriasis " " " Auspitz's sign

Other types

Abortive * herald patches not followed by eruptions

Inverted * eruption is restricted to extremities - face and no lesions on the trunk

Treatment

Self-limited. - may leave temporary hyper or hypopigmentation

- ① Reassurance
- ② Avoid soap - hot bath - woolen clothes
- ③ Topical steroid or antipruritic
- ④ UVR

Warts

Primary lesion $\Rightarrow$ Papules

Causative org. Human papilloma virus

types of warts

① Common wart $\Rightarrow$

Lesion $\rightarrow$ papules [asymptomatic, sessile, firm-dome shaped rough surface - skin colored - Multiple]

Sites $\rightarrow$ Common at site of trauma "Koebner phenomenon" (dorsum of hands - fingers - knees...)

② Plane wart $\Rightarrow$ common in children - young adults

lesion $\rightarrow$ papules [flat-topped surface - usually multiple - may coalesce - smooth]

site $\rightarrow$ "Koebner phenomenon" linear arrangement at sites of scratching

③ filiform warts

long-slender projection

④ Digitiform warts

finger-like projections common in upper eyelid, chin

⑤ plantar warts

lesion $\rightarrow$ small shiny papules $\xrightarrow{\text{not-elevated}}$ well-defined rounded lesion with rough surface
the surface interrupts skin lines (characteristic)
Painful - (+) Black dots indicates occlusion of b-v feeding the wart

Site: pressure areas of the sole

(im) Differential D

Callus

(without interruption of skin lines)

Corn

(no bleeding points in pairing)

⑥ Genital warts (Condyloma acuminatum)

lesion $\rightarrow$ small elongated red soft pedunculated papule

lobules + Malodorous cauliflower masses $\xleftarrow{\text{enlarges}}$ divides at its free margin

$\rightarrow$ pairing $\Rightarrow$ bleeding points

$\rightarrow$ lesions may extend into vagina, cervix, urethra

$\rightarrow$ oncogenic potentiality (Cancer cervix)

Differential-D: "Condyloma lata" of 2nd syphilis

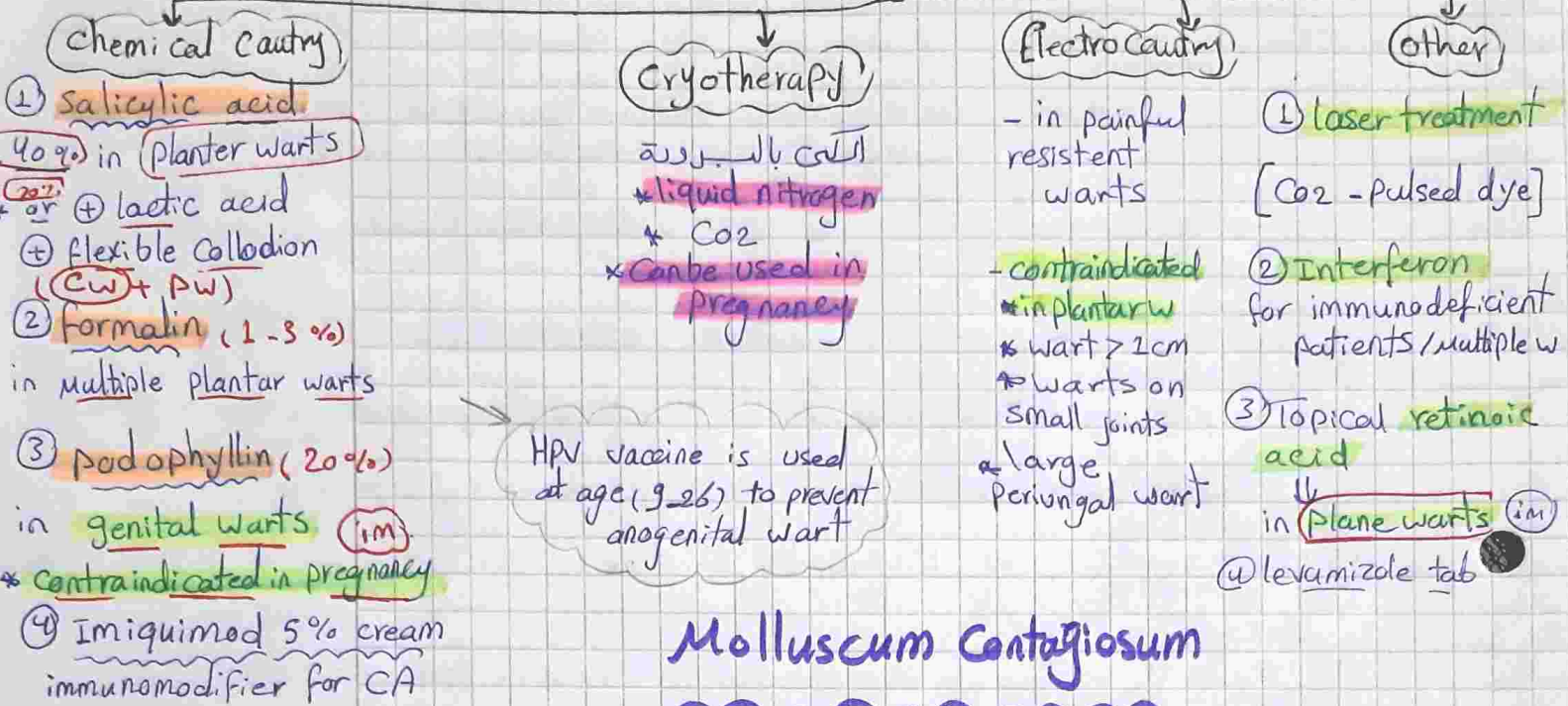
[Sessile + flat-topped + (+ve) serological test for syphilis]

Pairing

معانها لو علت pairing
لل lesion
بظهر bleeding points
wart is feeded by b-v

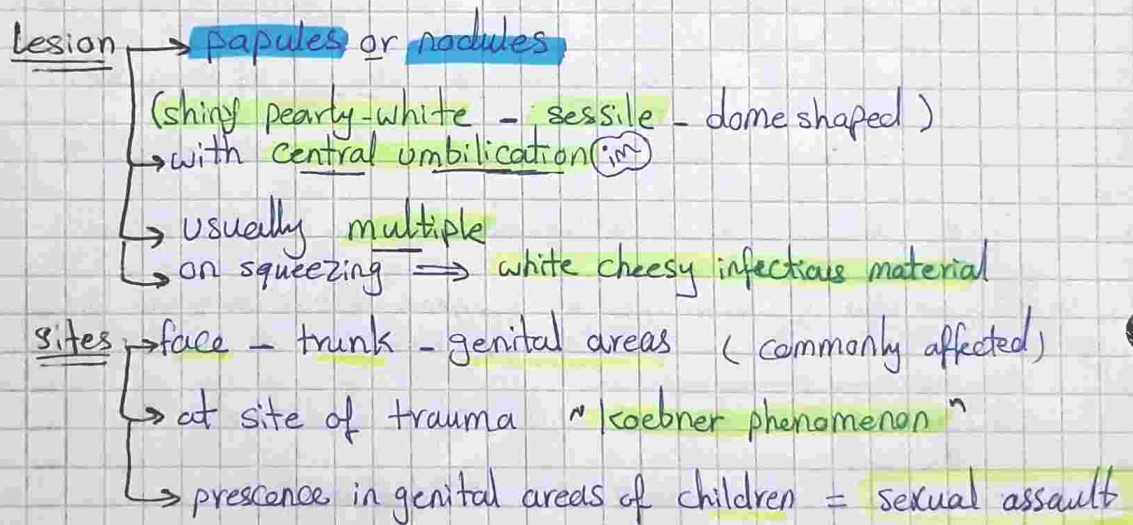
Warts "verrucae" Treatment

Mainly by destruction of the lesion



Molluscum Contagiosum

- * highly infectious disease
- * caused by POX-virus



treatment: mainly destruction of the lesion

- Curettage (CJ)
- Cryotherapy
- Electrotherapy
- chemical castry "silver nitrite, phenol"
- laser treatment "CO2"
- In children

the lesion may has spontaneous regression but treatment is a must because it is infectious

adhesive tape every night or topical retinoic acid

warts
ونضيف
"Curettage علاج"

Scabies

D.D

1. Papular urticaria
 2. lichen planus
 3. Eczema
 4. Animal scabies
- itchy

clinical picture → "Polymorphic lesions"

- Pathognomonic sign ⇒ Burrows (im)
+ vesicle or papule at the end of the burrow
- other lesions (papules - scratch marks - vesicles, bullae)

sites, Distribution → Distributed symmetrically

"classical distribution"

- Finger webs ← pathognomonic site (im)
- ant. aspect of wrists, elbows, axillae, antecubital fossae
- periumbilical, male genitalia, nipples, areola in female breasts - navel cleft
- buttocks, medial aspects of thighs, legs

Diagnostic criteria

- severe itching worse by night (im)
- characteristic distribution
- polymorphic lesions
- affection of more than one family members
- visualization of mites under M/E or by Dermoscopy

notes

Animal scabies: [short IP - no burrows - self limited webs, genitalia are free - not infectious] no human-human transmission

nodular scabies → hypersensitivity reaction to mites occurs mainly in children

Lesion reddish-brown nodules persist for weeks after treatment of scabies

sites most commonly "Axillae" + male genitalia + umbilicus

Norwegian "crusted" scabies → severe form with innumerable mites occurs in - Mentally retarded - poor sensation - severe systemic disease - and immunocompromised patients

Lesion extensive crusted eruption of hands, feet subungual keratosis + scaly plaques

itching may be absent

scabies in infants →

* associated with vesicles and bullae in palms, soles (im)

* lesions may be observed in head, neck, scalp

Atypical distribution

very infectious

on face - scalp - trunk or generalized

Complications

- 2nd bacterial infection (Impetigo, cellulitis)
- Acarophobia (im) parasitic delusions of still having scabies after successful treatment and continues to itch)
- Eczema

Treatment

- Disinfection (boiling clothes, towels)
- Treatment of all family members
- Scabicide agents

systemic

* Ivermectin
* antibiotic
* antihistaminic

Topical
GPs {
- Gamma benzene "GBH"
- Permethrin (safe)
- sulphur - Benzyl benzoate
- crotamiton
- malathion

nodular scabies → steroids (intralésionally)
→ surgical excision

not used in infants and pregnant as it causes CNS toxicity

For postscabitic pruritis
* preferred for infants

1. 1st & 2nd GPs
for 1st
congenital

Treatment of Scabies (Topical)

Permethrin 5%

* The treatment of choice

* applied for 2 successive nights then 3rd application after 8 days

Sulfur 10%

* 3-5% in children

* applied for 4 successive nights

* less accepted due to bad odor, staining

Gamma-benzene hexachloride 1%

* Single application left for 12h

* Not safe in children pregnant & lactating patients

Benzyl benzoate 25%

* 2 successive nights

Crotamiton 10%

* 2 successive nights

Malathion 0.5%

* single application for 12h

Safe

(in children - pregnant)

* Permethrin is the drug of choice in pregnancy and

2nd ⇒ Malathion

Systemic Treatment

Oral Ivermectin

- dose 6 mg / 15 kg single dose → repeated after 1 week
- Safe but not recommended in pregnancy - children < 15 kg
- Topical Ivermectin 1% is available

Antihistamines for itching

Antibiotic for 2nd infection

Note ⇒ other types of scabies include:-

* Scabies incognito → when topical or systemic steroids are used to mask the typical itching or distribution

Scabies in clean → difficult to see the burrows due to frequent bathing

Pediculosis "Louse"

Pediculosis capitis

Clinical picture → Nits^(im) eggs are firmly glued to hair shaft (grayish-white in color)

* associated with cervical-occipital lymphadenopathy

itching and scratching may result in 2nd bacterial infection with impetigo^(im)

Treatment

→ when pediculosis present with impetigo - treat^(im) impetigo at first by Co-trimoxazole

→ cutting the hair short

- Malathion 0.5 %

- Permethrin 5 %

- Ivermectin 1 %

Pediculicide Drugs

→ repeat the treatment after one week

→ remove the nits by white vinegar

→ as drugs are not effective on the nits

Urticaria

type I hypersensitivity reaction due to release of histamine from mast cells.

causes

- food
- Drugs (antibiotics - NSAIDs - opiates)
- Infections
- inhalants
- autoimmune diseases (ex: SLE)
- neoplasms (lymphoma - leukemia)
- physical factors (sun - cold - pressure)
- psychological (stress)
- idiopathic (90 % of chronic urticaria)

dermographism

physical urticaria appears at sites of application of pressure to the skin

Clinical picture

→ **wheals** ⇒ [itchy - Erythematous^(im) (last less than 24 h)]

→ the wheals appears as erythematous papules, plaques

→ **Angioedema** (edema of eyelids - lips)

* edema to thin skin and loose S.C tissue

→ may be life-threatening

Course

- acute urticaria ⇒ disappears within few hours or days
- chronic urticaria ⇒ persists for more than 6 weeks

Treatment

→ removal of the cause

→ Adrenaline

→ Antihistamines - steroids - calcium gluconate

* specific treatment

Papular urticaria

* hypersensitivity reaction to insect bites (fleas - Mosquitoes)

Clinical picture

- usually affects children
- itchy erythematous edematous papules^(im) with center that may show vesicles (rarely)
- common in limbs - trunk

Course

Resolution

spontaneously due to gradual desensitization

Prurigo of Hebra

- shotty papules^(im)
- lichenified skin + itching
- lymphadenopathy

→ type of atopic dermatitis which is chronic and relapsing and common in children

Psoriasis



Etiology - Genetic Causes + Provocating factors :-

- ① Trauma → (Koebner phenomenon) ^{im}
 - ② infection → streptococcal
 - ③ Endocrine → Improve by pregnancy
 - ④ Emotional → stress
 - ⑤ Drugs → chloroquine - lithium - B-blockers
 - ⑥ sunlight → sudden stop of systemic steroids.
 - ⑦ Metabolic → hypocalcemia
- Beneficial in most cases.

Pathology:

- Hyperkeratosis - Parakeratosis - Acanthosis
- absent granular layer ^{im}
- Munro - Micro abscesses
- Elongated dermal papilla + dilated tortuous capillaries
- thin supra-papillary epidermis ^{im}

↑↑ spinous cell layer

Types

① Psoriasis vulgaris →

- plaque psoriasis ^{im}
 - well-defined red papules with silvery-white squ scales "salmon red erythema"
 - (+ve) Auspitz sign
 - sites: extensor surfaces of elbows and knees.

- scalp psoriasis:
 - plaques with dry, firm and adherent scales
 - heavy asbestos-like scales ⇒ "Pityriasis amiantacea"

- nail psoriasis → nail pitting ^{im}

→ palm and soles

→ mucosal → "Geographic tongue"

→ intertriginous → lacks of scaling + itching (shiny-red-smooth plaques)

* primary lesion
↓
papules

- ② Guttate Psoriasis → drop-like papules (mainly on trunk)
→ common in children
→ following streptococcal infection.

③ Erythrodermic psoriasis → severe form affecting the entire skin

④ Pustular psoriasis → sterile pustules ^{im}
→ may be localized to palms and soles or generalized

rare but life-threatening forms of psoriasis

⑤ Arthropathic psoriasis → often associated with nail psoriasis.
→ treated by injection of steroids in nail fold

Sites → extensor surfaces of knee elbows - lower back

Treatment of Psoriasis

Topical

- Topical steroids (Anti-inflammatory - Anti-inflammatory)
- Salicylic acid (3%)
(to remove the scales) "keratolytic"
- Tar [tar + UVB = Gokerman]
- Anthralin
- Calcipotriol (twice daily for 8w)
(vit. D analogue)
- Contraindications of Tar
 - on face - flexures - genitalia
 - Erythrodermic and generalized pustular psoriasis
 - severe acne, folliculitis

Systemic

- Methotrexate (hepatotoxic - myelotoxic)
- Cyclosporine (nephrotoxic)
- Biological therapy
 - { { TNF- α } blockers }
 - { IL-17 antagonists }
 - PUVA
 - [Psoralen + UVA]
- Oral retinoids
(Acetintin) "Etretrinate"
* with A derivative
* teratogenic
- Extensive-resistant psoriasis vulgaris
 - Erythrodermic psoriasis
 - G. pustular psoriasis
 - Arthropathic psoriasis

Phototherapy

- Ultraviolet B
(3 times weekly)
- Ultraviolet A "PUVA"

Indications of PUVA therapy

- Psoriasis
- lichen. P
- severe Alopecia. Areata
- vitiligo
- Atopic dermatitis

Note

Systemic steroids are contraindicated in psoriasis vulgaris except in:-
 ① Erythrodermic
 ② severe psoriasis in pregnancy

Lichen Planus

Etiology

- unknown
- associated with hepatitis C and stress

pathology

- Hyperkeratosis
- ↑↑ thickness of granular layer
- saw-tooth pattern of rete ridges
- liquefactive degeneration of basal cell layer
- Band-like lymphocytic infiltration

clinical picture

- Violaceous papules (polygonal - itchy - flat topped)
- Wickham's stria
- (+ve) Koebner phenomenon

Mucosal lesions

- Plaques - streaks - painful erosions (in tongue - buccal cavity - lips) "Erosive L.P."
- "precancerous"

Nail lesions

- longitudinal ridging "striations"
- splitting of nailplate
- Pterygium

lesions on palms, soles

- firm yellowish papules (non-itchy)

sites

- flexor surfaces
- "mainly on wrists"

clinical variants

- Actinic L.P → in sun-exposed areas
- Hypertrophic L.P → violaceous plaques on shins, ankles
- linear L.P → following trauma
- follicular L.P → leads to scarring alopecia
- Bullous L.P → Bullae + L.P

Course

- subsidies in few weeks (acute) or after 9-18 week (chronic)
- Heal by hyperpigmentation or atrophy (in hypertrophic - annular types)

Treatment

- Topical and systemic steroids + antihistamines

Discoid Lupus

* Autoimmune - inflammatory skin disease common in females

Clinical picture

- well-defined erythematous plaques
- adherent scales - telangiectasia
- horny plugs - Dyspigmentation

sites

- Common in face sun-exposed areas "butterfly areas"
- may affect the mucosa - scalp

healing

- Atrophic scar + Dyspigmentation
- in scalp → scarring alopecia
- May progress to SLE in 6% of cases

Treatment

- steroids
- chloroquine (in non-responding lesions)



→ Papules, scales forming plaques and central clearing resulting in annular pattern

* annular lichen planus is common in glans penis

painful ulcerations on sole

"verruca" or wart-like

"Lichen planopilaris"

→ hypertrophic → erosive

Intralesional steroids

→ Hypertrophic LP
→ Erosive oral lesions

Seborrheic Dermatitis

Etiology → Over production of the sebum
 ↳ Malassezia furfur is found to be involved

Sites → oily, hair-bearing areas (scalp, forehead - Nasolabial fold)
 ↳ peristernal, interscapular areas - behind ears
 ↳ flexures (umbilicus - axillae - inguinal)

Patterns → ① Dandruff → Diffuse fine greasy scales - "Pityriasis capitis"
 ↳ No Alopecia, No inflammation
 ↳ Differentiated from T. Capitis, scalp psoriasis
 ↳ The mildest form

Adult SD

more common in Males

→ ② SD of scalp (inflammatory types) → Excessive dandruff - itchy greasy scales - erythematous eruption
 ↳ folliculitis, Blepharitis

→ ③ SD of Trunk (presteral, interscapular) → the most common form
 ↳ localized red, oval or annular, greasy, scaly lesions.

→ ④ Generalized form → Differentiated from P. rosea - Psoriasis "guttate"

→ ⑤ SD of flexures → Differentiated from intertrigo - (maceration + oozing)

greasy papules may coalesce to form polycyclic or circinate lesion

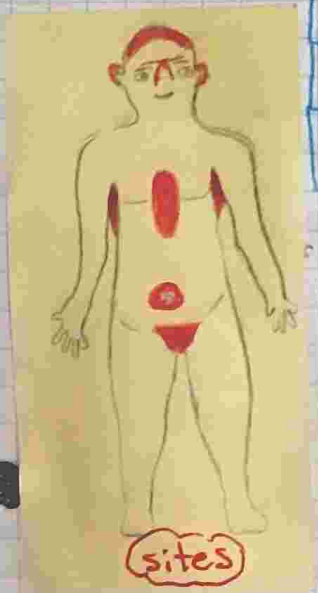
Treatment of Adult SD

→ The disease is not curable but treatment is directed toward suppression of the disease.

Scalp lesions → Shampoo containing tar, ketoconazole, selenium sulphide

skin lesions → Topical steroid, Topical antifungal.

● Infantile SD → Due to stimulation of sebaceous glands by maternal androgen.
 ↳ lesions mainly affect Axillae and inguinal folds.
 ↳ Cradle cap: thick scales forming yellowish-brown heaped lesion
 ↳ subsides within 3-4 weeks



→ Treatment → avoid irritating soap
 ↳ olive oil to remove the crust
 ↳ Regular bathing
 ↳ Topical antifungal or steroid
 ↳ avoid mechanical measures
 (التهيجات وتشنج القشور ينعشها)

Acne vulgaris

Pathogenesis

- sebacaceous gland hyperactivity
- Hyperkeratosis of pilosebaceous duct
- ↑ proliferation of *propionibacterium . acnes*
- inflammation initiated by *P. acnes*.

lesion

- Primary lesion is **Comedo**
 - closed
 - "white heads"
 - the obstruction is deep
 - opened
 - "Black heads"
 - the obstruction is superficial.
- inflammatory lesions (papules - pustules - nodules - cysts)

Classification

- Comedones (± few papules) ⇒ **Mild**
- Comedones + papules (± pustules) ⇒ **Moderate**
- Comedones + nodules + cysts ⇒ **Severe**

Treatment

- According to the type of Acne
 - Mild → Topical Treatment
 - Severe → systemic Treatment

Treatment

Topical

- Retinoids
 - (Tretinoin - adapalene) - Retinoic acid
 - Salicylic acid (2%) "keratolytic"
 - resorcine
- Anti bacterial agents
 - Benzoyl peroxide (5%) "Bacteriostatic"
 - erythromycin - clindamycin

systemic

- Antibiotics
 - (Doxycycline - Azithromycin)
 - ↳ Drug of choice
- Antiandrogens
 - (only in females)
- systemic retinoids
 - (Isotretinoin) (im)
- Anti-inflammatory
 - ↓ sebum production
 - ↓ activity of *P. acnes*
 - ↓ hyperkeratosis
 - anti-inflammatory teratogenic vito
- Dapsone (antiinflammatory)

Comedolytic

لم يتم جذا عدم الفروق
للشخص عند وضعه

Treatment

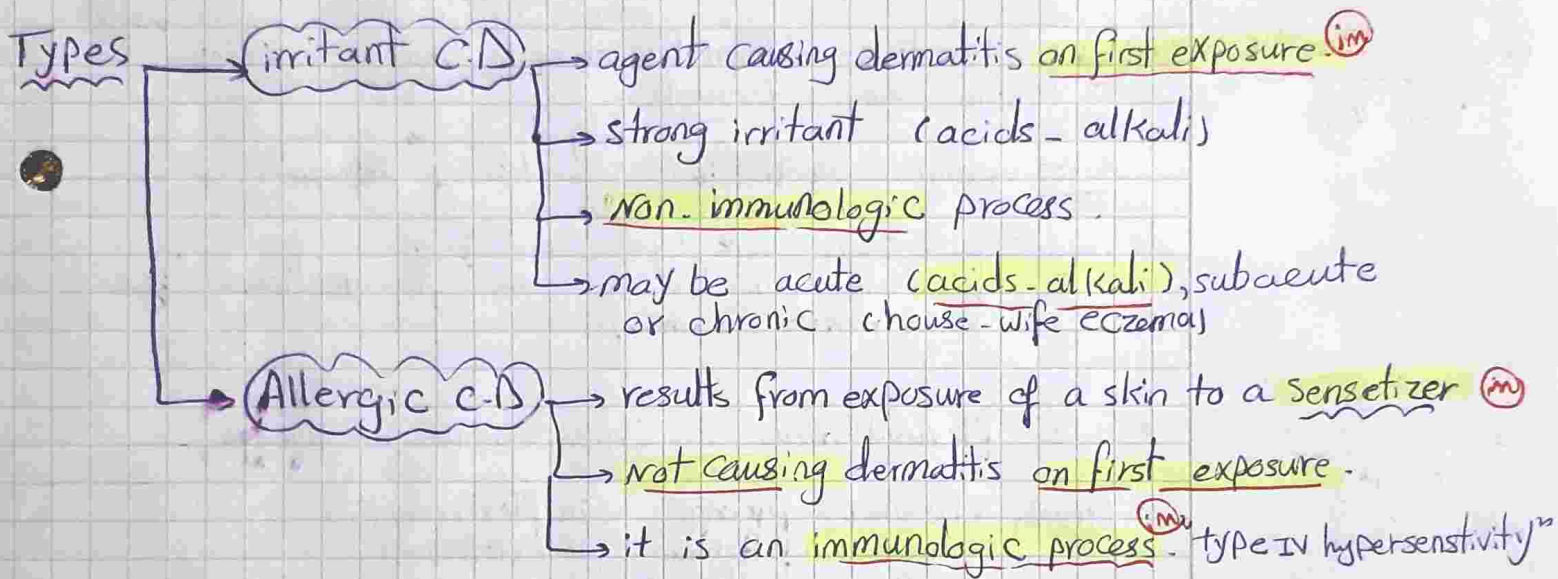
- Mild** ⇒ Topical comedolytic only
- Moderate** ⇒ Topical therapy + systemic antibiotics
- Severe** ⇒
 - systemic Antibiotics + Dapsone + antiandrogen
 - Isotretinoin

Eczema = "Dermatitis" $\Rightarrow$ itching (im)

* Stages of eczema $\rightarrow$ Acute (erythema - vesicles - exudation - Crusts) strong irritant
subacute weak irritant
chronic (lichenification) continuous irritant

* Types of Eczema $\rightarrow$ Exogenous "Contact dermatitis"
Endogenous $\rightarrow$ "Atopic dermatitis"
 $\rightarrow$ others (pompholyx - p. alba - Discoid eczema)

1 Contact Dermatitis



Note $\Rightarrow$ Sensitizer is an agent causing dermatitis after latent period.
ex: (nickel - chrome - perfumes - jewelry)

phototoxic CD

- * activation of irritant by UVR
- * ex: (Tar - psoralen)
يوجد مع أدوية تفرج الشمس

photoallergic CD

- * Activation of sensitizer by UVR
- * ex: (perfumes - cosmetics)
لازم تجنب الشمس عند استخدامها



Diagnosis $\rightarrow$ lesions localized to the site of contact.
 $\rightarrow$ improved of the lesion by removal of the contactant.
 $\rightarrow$ patch test (im) in allergic C.D

Note $\Rightarrow$ patch test is negative in irritant C.D (im)

Treatment $\rightarrow$ Emollients
 $\rightarrow$ Removal of the cause
 $\rightarrow$ Topical steroids

→ Atopic Dermatitis

general characters

- chronic relapsing inflammatory skin disease
- genetically determined "filaggrin gene"
- family history of Atopy or other atopic diseases.

Note ⇒ Atopy is a group of genetically-determined immune-mediated disorders (B.A - hay fever - allergic rhinitis - A.D)

clinical picture

- the cardinal symptom is itching (im)
- differs according to the age
- there may be fine scaling

Clinical Types

1 infantile A.D

2M - 2y

itchy edematous erythematous discrete papules, vesicles with ozing and crusts. (ill-defined) primary lesion

Sites: common on the face "cheeks" + flexors

Course: 50% clear by the age of 2
the reminder pass through childhood stage
remissions, relapses.

2 childhood A.D

2 - 10y

sites: flexural areas (groin, axillae are sparing)

Types:

- Besnier's prurigo (in flexures) (im)
- prurigo of Hebra (in extensors)
- pityriasis alba (oval dry scaly patches on the face and arms that subsides with hypopigmentation)
- Hand Eczema
- Discoid Eczema (coin-shaped itchy, well-defined (im) Bilateral symmetrical plaques of eczema)

3 Adulthood A.D

lesions are dry, lichenified - in flexor areas

types:

- pruritis (scroti - vulvae - ani)
- ECZEMA of nipples
- ECZEMA of hands
- pompholyx (crops of severe itching deeply seated vesicles on palms, soles - Recurrent)

Complications

- secondary bacterial, viral infections
- ECZEMA herpeticum (HSV complicating AD)

Diagnostic criteria of A.D

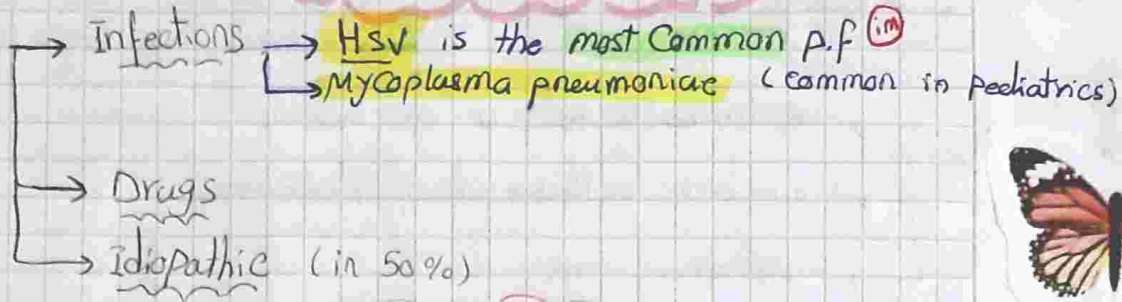
- severe itching "Pruritis"
- personal or family history of Atopy
- Chronic nature with remissions and relapses.
- Typical morphology and distribution → face and extensors in infants
flexors in adults and childhood.

Treatment

- Emollients - antihistaminics - corticosteroids.
- avoid exposure to irritants

Erythema multiforme

Etiology



Clinical picture

EM. Minor

X involvement of mucus membranes

X systemic symptoms

Target lesions "iris" (im)

- arise abruptly
- red "maculo-papule"
- the periphery is erythematous and the center (cyanotic - purpuric - necrotic)
- may vesiculate
- multiple morphological changes

Lesions

- similar to EM. minor but severe
- severe vesicubullous eruptions (may present)
- Mucus membrane lesions
- oral mucosa show painful erosions with vesicles and bullae
- lips show hemorrhagic crusts (im)
- Conjunctivitis (bilateral) + Corneal ulcers
- blindness

Common sites of EM. Minor

⇒ Extensor surfaces of extremities, face, neck

Course

- ⇒ Most cases are mild
- individual lesions resolves within 2 weeks without scarring
- Tend to recur (especially following recurrent HSV)

Treatment

- ⇒ Elimination of the offending agent.
- symptomatic + supportive treatment.

Epidermal Necrolysis

[(SJS) Stevens-Johnson syndrome - Toxic Epidermal Necrolysis (TEN)]

* Drug induced - life threatening mucocutaneous reactions (↑ with carbamazepine)

(lesions) ⇒ Extensive necrosis and detachment "sloughing" of the epidermis (im)

- Erythematous macules → flacid blisters → rupture → Epidermal detachment and oozing erosions.
- prodroma ⇒ fever, fatigue, painful skin

[✓ Mucus membrane involvement (in 90% of cases - painful erosions)
✓ visceral involvement

- positive Nikolsky sign (im)

- Site ⇒ Trunk and proximal limbs.

Note → mortality rate of epidermal necrolysis (25-30%)
Nikolsky sign is +ve in → SJS, TEN
→ pemphigus vulgaris

Treatment of Epidermal necrolysis → Hospitalization to ICU or burn unit
→ immediate withdrawal of the drug
→ supportive care

→ pemphigus vulgaris

Etiology ⇒ "Autoimmune disease" autoantibodies against intracellular ^(im) bridges of prickle cell layer. - (life-threatening)

Pathology → Acantholysis ^(im) - intraepidermal bullae

Clinical picture ⇒ - The first manifestation ⇒ oral erosions ^(im) and bullae (painful)
(✓ involvement of MM)
- flaccid bullae rupture → erosions, crusts.
- (+ve) Nikolsky sign.
- Sites → scalp, intertriginous areas

Treatment ⇒ - systemic steroids.
- immunosuppressive drugs.

Erythema nodosum

Inflammation of subcutaneous fat "panniculitis"

- Etiology
 - Infections (common in children after URT with streptococcal) ^(im)
 - Drugs (sulfonamides - sulphonylureas - ocp-iodide)
 - Sarcoidosis (in adults)
 - malignancy - Inflammatory bowel diseases
 - Idiopathic (in 50%)

- Clinical picture
 - Tender erythematous shiny nodules (not ulcerating) ^(im)
 - usually after a prodroma of URT infection with strept.
 - associated with malaise, arthritis

- Course
 - spontaneous resolution within 2-6 weeks without ulceration or scar.
 - recurrence may occur ^(im)
 - show bruise-like changes in color during regression.

- Sites
 - most common site is shin of the tibia ^(im)
 - Bilateral ^(im) symmetrical distribution (over legs or thighs)

- Treatment
 - Treating the underlying cause (if detected)
 - supportive treatment
 - anti-inflammatory
 - potassium iodide drops in severe cases

Alopecia

① Cicatricial Alopecia "Scarring"

- Destruction of hair follicles by scarring
- permanent condition - no expected hair growth.

Congenital

- scarred area in scalp present at birth

Acquired

- Trauma
- infections (Kerion, favus, abscess) ^(im)
- Discoid lupus erythematosus ^(im)
- lichen planus
- Malignancy

② Non-Cicatricial Alopecia

Congenital

- * failure of development of hair follicles

Circumscribed

- Alopecia areata
- Androgenic Alopecia
- Traumatic alopecia
- "trichotomania" ^(im)
- infections
- * T. capitis (scaly and black-dot type)

- * secondary syphilis
- "moth-eaten alopecia" ^(im)

Acquired

Diffuse

→ Telogen effluvium ⇒ ↑ hair growth mainly due to stressful conditions.

→ systemic diseases ⇒ SLE ^(im), malignancy

→ Endocrinal ⇒ hypo-hyperthyroidism

→ Drugs ⇒ cytotoxic drugs

→ idiopathic

Alopecia Areata (الثعلبة)

→ sudden loss of hair

Etiology ⇒ auto-immune disease - genetically determined

site ⇒ any hairy part but most commonly the scalp

clinical picture ⇒ patch devoid of hair (well-circumscribed, without inflammation or scarring).

⇒ exclamation mark hair ^(im) at the margins of the lesion.

other types

Ophiasis

→ alopecia in the margins of the scalp ^(im) or in the occipital area.

Alopecia totalis

→ loss of all scalp hair ^(im)

Alopecia universalis

→ loss of scalp hair and body hair ^(im)



Differential diagnosis of Alopecia areata

- Tinea capitis (scaly - black dot) (im)
- Congenital localized alopecia
- Toxic alopecia
- Trichotomania

Prognosis of AA

→ unpredictable
first attack of localized AA often regrowth

Bad prognostic factors (مؤشرات سيئة)

- ophiasis
- total Alopecia
- universal Alopecia
- Alopecia in Atopic patient
- Alopecia with nail changes.

changes that can be seen in Alopecia Areata

- Nail changes -
- vitilligo
- Atopic disorders
- SLE
- Cataract

Treatment of Alopecias

→ Topical Minoxidil (im) (2% - 5%)

→ Topical irritant (iodine - anthralin)

→ intralesional steroid (im)

→ PUVA

→ contact immunotherapy (with chemicals causing Allergic c.D)

Alopecia Areata ←

Note → PUVA in dermatology is used in 3 cases

- ① psoriasis
- ② Alopecia Areata
- ③ vitilligo

Pigmentation Disorders

Causes of hyperpigmentation

Generalized

Addison disease

Localized

- Freckles (maculae) (النمش)
- Melasma (Patch)
- Pityriasis versicolor (hyperpigmented type)
- Post-inflammatory hyperpigmentation.

Causes of hypopigmentation

- pityriasis alba
- Pityriasis versicolor (hypopigmented type)
- Tubercloid leprosy
- Post inflammatory hypopigmentation

Causes of depigmentation

Congenital

- Albinism
- piebaldism

Acquired

- idiopathic ⇒ vitiligo (im)
- secondary ⇒ to burn or chemicals

Genetically determined **Vitiligo** acquired depigmentation.



Etiology ⇒ unknown, but there are various theories:-

- ① Autoimmune theory ⇒ autoantibodies against melanocytes.
- ② self-destructive theory ⇒ Toxic melanin precursors remain during melanin synthesis causing destruction of melanocytes.
- ④ Neural theory
- ⑤ Genetic theory

Preprecipitating factors

- Emotional stress
- sunburn
- Trauma ⇒ "Koebner's phenomenon" (im)

Clinical picture

- Milky white depigmented macules and patches (im)
- Variable in size, shape, number
- site:
 - Any part could be affected
 - hair and mucous membrane (im) could be affected.

Koebner's Phenomenon (im)

- psoriasis
- lichen Planus
- wart
- Molluscum
- vitiligo

Clinical types of vitiligo

- localized
 - focal (one area of the body)
 - segmental (dermatomal distribution)
 - mucosal (affect mucous membranes only)
- Acrofacial (distal fingers + around mouth/orifices)
- Generalized "Vulgaris"
 - affecting < 50% of the body
 - scattered macules and patches
- universal (affecting > 90% of the body) "nearly complete"

Course

- unpredictable
 - spontaneous repigmentation (in 20%)
 - slow or progressive or stationary

Diagnosis

- wood's light → bright white (im)
- absence melanocytes, melanin in the affected area

Differential Diagnosis

(↑ ↓)

- Albinism
- pityriasis alba
- Pityriasis versicolor
- post-inflammatory hypopigmentation ✓
- chemical depigmentation
- hypopigmented macules of leprosy

Treatment

localized

- PUVA (Topical) (im)
- Topical corticosteroids
- Topical calcineurin inhibitors
- Topical covermark creams

Generalized

- PUVA (systemic) (im)
- KUVA (systemic)
- ACTH

Universal

* Depigmentation of the normal pigmented areas by using :-

"Monobenzyl ether of (im) hydroquinone"

Note → Bad response to treatment occurs in :-

- vitiligo of palms and soles (im)
- segmental, Acrofacial type (im)
- mucosal type
- vitiligo on bony prominences.

← (Skin - Tumors) →

[1] Benign tumors from superficial Epidermis:

→ Acrochordon "skin tags"
• Papilloma

Common (25%)
sites: Axilla - neck - inguinal
↑↑ with age - (single or multiple)

→ Epidermoid cyst

→ unilocular spherical cyst in the dermis
→ filled with lamellated keratin.
→ connected with the surface by keratin filled duct

[2] Benign melanocytic tumors:

→ Melanocytic nevi "Mole"

→ A type of hamartoma (m)
→ result from proliferation of Melanocytes at dermo-epidermal junction

(types)

- Compound
- Intradermal

→ junctional nevus

Remain in contact with the basal layer

• detached from basal layer and lie free in dermis

(Grossly) → papule or macule - less than 0.6 cm (m) - often erosions, ulcerations

(M/E)

→ intra-epidermal nevus
→ junctional nevus → at tips of rete ridges
→ intradermal nevus → in upper dermis + mucin in stroma
→ compound nevus

[3] Malignant Melanocytic tumors - "Melanoma"

histological features

→ Asymmetrical proliferation of Melanocytes.
→ Atypical Melanocytes invading upwards and downwards.
→ Atypia "Malignant Criteria"

(staging)

clark level

→ Berslow depth

* measure the thickness of Melanoma with micrometer by small ruler

→ level (1) → in the epidermis
→ level (2) → invade Papillary dermis
→ level (3) → touching the deep dermis
→ level (4) → invading the deep dermis "Reticular dermis"
→ level (5) → invading the fat under the dermis.

[4] Benign tumors from mesodermal tissue:

→ Dermatofibroma : "Benign fibrous histiocytoma"

→ common in lower extremities
→ Pink to brown - hard in consistency - single or multiple.

• → Lipoma : → Benign tumor of mature fat cells.

(M/E) well-circumscribed capsulated soft grossy mass + yellow in color
(M/E) → lobules of mature fat cells "signet ring appearance"

Secondary changes of lipoma

- Myxomatous changes
- Dystrophic calcification
- fibrosis "fibrolipoma"
- Malignant transformation is very rare (im)

Hemangioma

Hamartoma (im) of blood vessels

Capillary hemangioma → Cavernous hemangioma

* in small-sized b.v

(N/E)

- ① Discolored patch "portwine"
- ② Discolored elevation "strawberry"

(M/E)

- * closely packed spindle cells with spaces containing little blood
- * hemosiderin is present ✓
- * scanty stroma

* in large-sized b.v

- * large soft ill-defined mass (1-2 cm)
- * Bluish in color

- * large cystically dilated vessels with thin walls
- * intravascular thrombosis or calcification is common.

Lymphangioma

- Hamartoma (im) of lymphatic vascular spaces.
- (N/E) ill-defined colorless (im) doughy swelling containing lymph
- (M/E) large lymphatic channels + fibrous stroma containing lymphoid aggregates

Epidermal malignancies

Basal cell carcinoma

- Most common (im) form of skin cancer.
- locally malignant (im)
- Derived from basal cells layer
- appears on sun-damaged skin

(M/E)

- Basaloid cells with scanty cytoplasm, hyperchromatic nuclei
- peripheral palisading (im)
- peritumoral clefting or Lacunae + mucinous alteration of the stroma

Squamous cell carcinoma

→ invasive cancer develops in the squamous cells that make up the middle and outer layers of skin.

(N/E)

① Carcinoma in situ

small reddish brown plaque with elevated margin - scaly surface

② Invasive lesion

firm elevated plaque with ulceration or polypoid mass.

(M/E)

- infiltrates in sheets - nests - islands, (cells with eosinophilic cytoplasm)
- In-situ: complete replacement of epidermis by atypical cells.
- Invasive: penetration of basement membrane and dermis
- 80% are well-differentiated consisting of keratinocytes and keratin pearls.